

(Sheet 1 of 24)

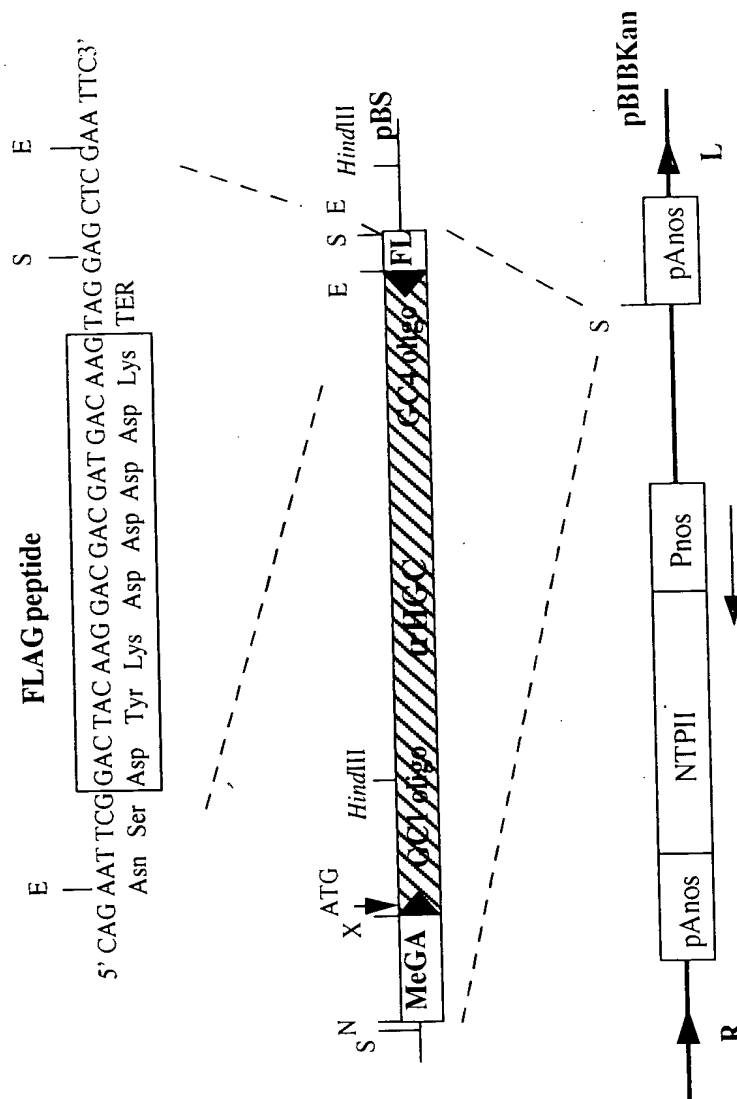


FIG. 1

(Sheet 2 of 24)



FIG. 2

(Sheet 3 of 24)

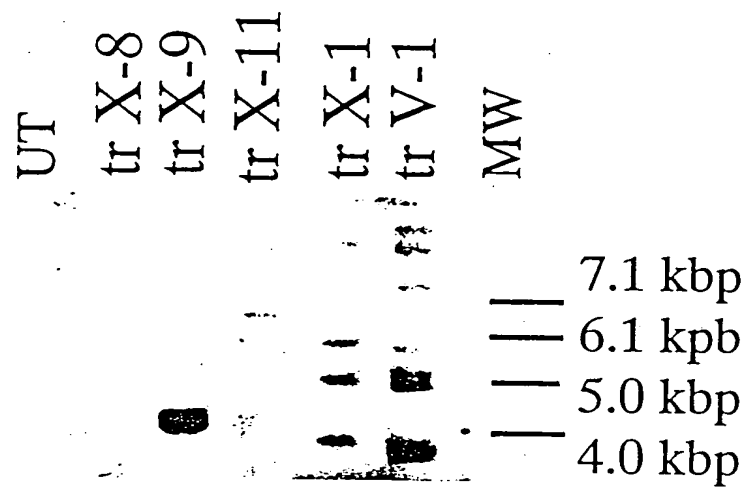


FIG. 3

(Sheet 4 of 24)

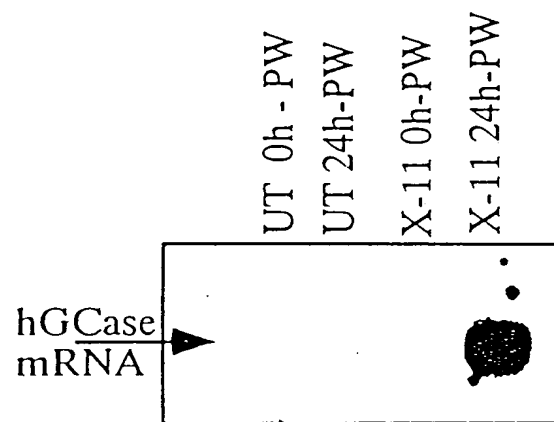


FIG. 4

(Sheet 5 of 24)

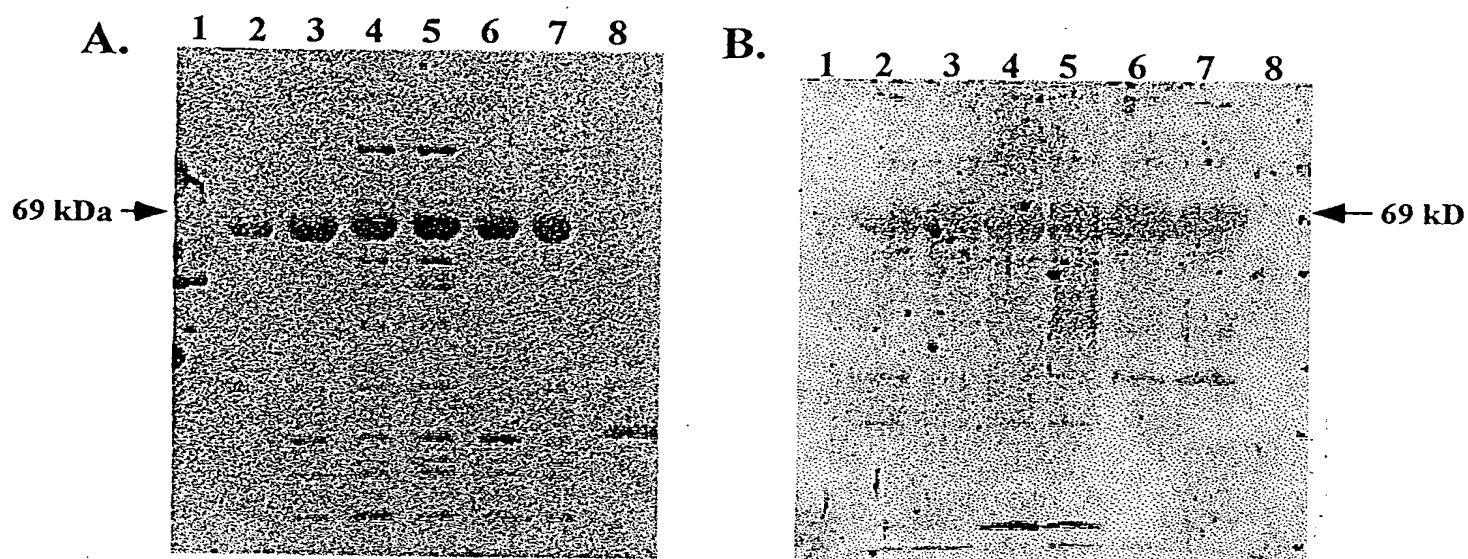


FIG. 5

(Sheet 6 of 24)

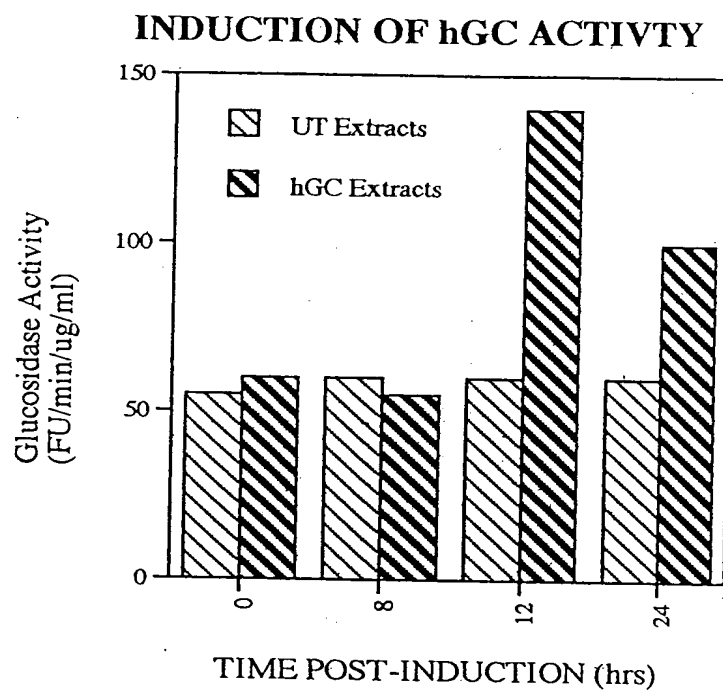


FIG. 6

(Sheet 7 of 24)

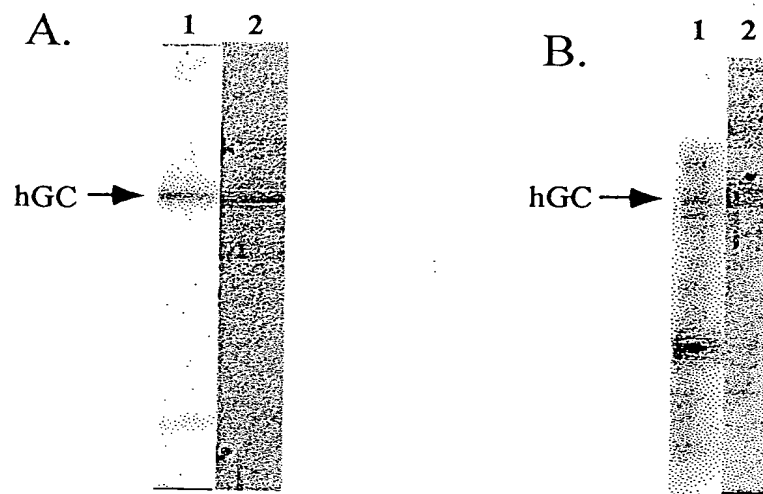


FIG. 7

(Sheet 8 of 24)

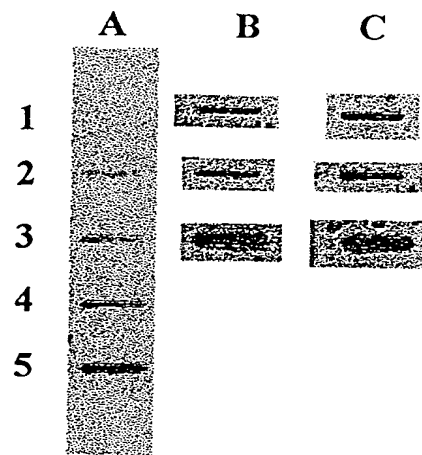


FIG. 8

(Sheet 9 of 24)

NUCLEOTIDE SEQUENCE OF hgc:FLAG

123 ATGGAGTT TTCAAGTCCT TCCAGAGAGG

151 AATGTCCCAA GCCTTTGAGT AGGGTAAGCA TCATGGCTGG CAGCCTCACA

201 GGTTCGCTTC TACTTCAGGC AGTGTGCTGG GCATCAGGTG CCCGCCCTG

251 CATCCCTAAA AGCTTCGGCT ACAGCTCGGT GGTGTGTGTC TGCAATGCCA

301 CATACTGTGA CTCCTTTGAC CCCCCGACCT TTCCTGCCCT TGGTACCTTC

351 AGCCGCTATG AGAGTACACG CAGTGGGCGA CGGATGGGGC TGAGTATGGG

401 GCCCATCCAG GCTAATCACA CGGGCACAGG CCTGCTACTG ACCCTGCAGC

451 CAGAACAGAA GTTCCAGAAA GTGAAGGGAT TTGGAGGGGC CATGACAGAT

501 GCTGCTGCTC TCAACATCCT TGCCCTGTCA CCCCCTGCCC AAAATTGTCT

551 ACTTAAATCG TACTTCTCTG AAGAAGGAAT CGGATATAAC ATCATCCGGG

601 TACCCATGGC CAGCTGTGAC TTCTCCATCC GCACCTACAC CTATGCAGAC

651 ACCCCTGATG ATTTCCAGTT GCACAACCTC AGCCTCCCAG AGGAAGATAC

701 CAAGCTCAAG ATACCCCTGA TTCACCGAGC CCTGCAGTTG GCCCAGCGTC

751 CCGTTTCACT CCTTGCCAGC CCCTGGACAT CACCCACTTG GCTCAAGACC

801 AATGGAGCGG TGAATGGGAA GGGGTCACCT AAGGGACAGC CCGGAGACAT

851 CTACCACCAG ACCTGGGCCA GATACTTTGT GAAGTTCCTG GATGCCTATG

901 CTGAGCACAA GTTACAGTTC TGGGCAGTGA CAGCTGAAAA TGAGCCTTCT

951 GCTGGGCTGT TGAGTGGATA CCCCTTCCAG TGCCTGGGCT TCACCCCTGA

1001 ACATCAGCGA GACTTCATTG CCCGTGACCT AGGTCCTACC CTCGCCAACA

1051 GTACTCACCA CAATGTCCGC CTACTCATGC TGGATGACCA ACGCTTGCTG

1101 CTGCCCCACT GGGCAAAGGT GGTACTGACA GACCCAGAAG CAGCTAAATA

1151 TGTTTCATGGC ATTGCTGTAC ATTGGTACCT GGACTTTCG GCTCCAGCCA

1201 AAGCCACCCT AGGGGAGACA CACCGCCTGT TCCCCAACAC CATGCTCTTT

1251 GCCTCAGAGG CCTGTGTGGG CTCCAAGTTC TGGGAGCAGA GTGTGCGGCT

1301 AGGCTCCTGG GATCGAGGGA TGCAGTACAG CCACAGCATC ATCACGAACC

1351 TCCTGTACCA TGTGGTCGGC TGGACCGACT GGAACCTTGC CCTGAACCCC

1401 GAAGGAGGAC CCAATTGGGT GCGTAACTTT GTCGACAGTC CCATCATTGT

1451 AGACGTCACC AGGGACACGT TTTACAAACA GCCCATGTTC TACCACCTTG

1501 GCCACTTCAG CAAGTTCATT CCTGAGGGCT CCCAGAGAGT GGGGCTGGTT

1551 GCCAGTCAGA AGAACGACCT GGACGCAGTG GCACTGATGC ATCCCGATGG

1601 CTCTGCTGTT GTGGTCGTGC TAAACCGCTC CTCTAAGGAT GTGCCTCTTA

FIG. 9 (Page 1 of 2)

(Sheet 10 of 24)

1651 CCATCAAGGA TCCTGCTGTG GGCTTCCTGG AGACAATCTC ACCTGGCTAC
1701 TCCATTCACA CCTACCTGTG GCGTCGCCAG aattcggact acaaggacga
1751 cgatgacaag tTGA

(Sheet 11 of 24)

```

1
MEFSSPSREE CPKPLSRVS IMAGSLTGLL LLQAVSWASG ARPCIPKSFG 50
51
YSSVVCVCNA TYCDSFDPP TFPALGTFSR YESTRSGRRM ELSMGPIQAN 100
101
HTGTGLLLLTL QPEQKFQKV KGFGGAMTDA AALNILALSP PAQNLLLSY 150
151
FSEEGIGYNI IRVPMASCD FSIRTYTYAD TPDDFQLHNF SLPEEDTKLK 200
201
IPLIHRALQL AQRPVSLA SPWTSPTWLK TNGAVNGKGS LKGQPGDIYH 250
251
QTWARYFVKF LDYAEHKL QFWAVTAENE PSAGLLSGYP FQCLGFTPEH 300
301
QRDFIARDLG PTLANSTHH NVRLMLDDQ RLLPHWAKV VLTDPEAAKY 350
351
VHGIAVHWYL DFLAPAKAT LGETHRLFPN TMLFASEACV GSKFWEQSVR 400
401
LGSWDRGMQY SHSIITNLL YHVVGWTDWN LALNPEGGP WVRNFVDSPI 450
451
IVDVTKDIFY KQPMFYHLG HFSKFIPEG QRVGLVASQK NDLDVAALMH 500
501
PDGSAVVVVL NRSSKDVPL TIKDPAVGFL ETISPGYSIH TYLWRRQnsd 550
ykdddk"

```

FIG. 10

CAATACGATA TTACCGAATA TTATACTAAA TCAAAATTTA ATTTATCATA TCGAATTATT 60
 AACTGATAT TTCAAATTTT AATATTTAAT ATCTACTTTC AACTATTATT ACCTAATTAT 120
 CAAATGCAAA ATGTATGAGT TATTTTCATAA TAGCCCGAGT TCGTATCCAA ATATTTTACA 180
 CTTGACCAGT CAACTTGACT ATATAAACT TTA CTTC AAAA 240
 TATATTATTG TAAAAGATAA TACTCCATTC AAAATATAAA ATGAAAAAAG TCCAGCGCGG 300
 CAACCGGGTT CCTCTATAAA TACATTTTCCT ACATCTTCTC TTCTCCTCAC ATCCCATCAC 360
 TCTTCTTTTA ACAATTATAC TTGTCAATCA TCAATCCCAC AAACAACACT TTTTCTCTCC 420
 TCTTTTTCCT CACCGGCGGC AGACTTACCG GTGAAATCTA GAGTAAGCAT C 471

FIG. 11

(Sheet 12 of 24)

CAATACGATA TTACCGAATA TTATACTAAA TCAAATTTA ATTTATCATA TCAATTATTA 60
AACTGATATT TCAAATTTTA ATATTTAATA TCTACTTTCA ACTATTATTA CCTAATTATC 120
AAATGCAAAA TGTATGAGTT ATTCATAAT AGCCCAGTTC GTATCCAAAT ATTTTACACT 180
TGACCAGTCA ACTTGACTAT ATAAAACTTT ACTTCAAAAA ATTAAAAAAA AAAGAAAGTA 240
TATTATTGTA AAAGATAATA CTCCATTCAA AATATAAAAT GAAAAAAGTC CAGCGCGGCA 300
ACCGGGTTCC TATAAATACA TTCCTACAT CTTCTCTTCT CCTCACATCC CATCACTCTT 360
CTTTTAACAA TTATACTTGT CAATCATCAA TCCCACAAAC AACACTTTTT CTCTCCTCTT 420
TTTCCTCACC GCGGCAGAC TTACCGGTGA AAGTAAGCAG STC 463

FIG. 11

(Sheet 13 of 24)

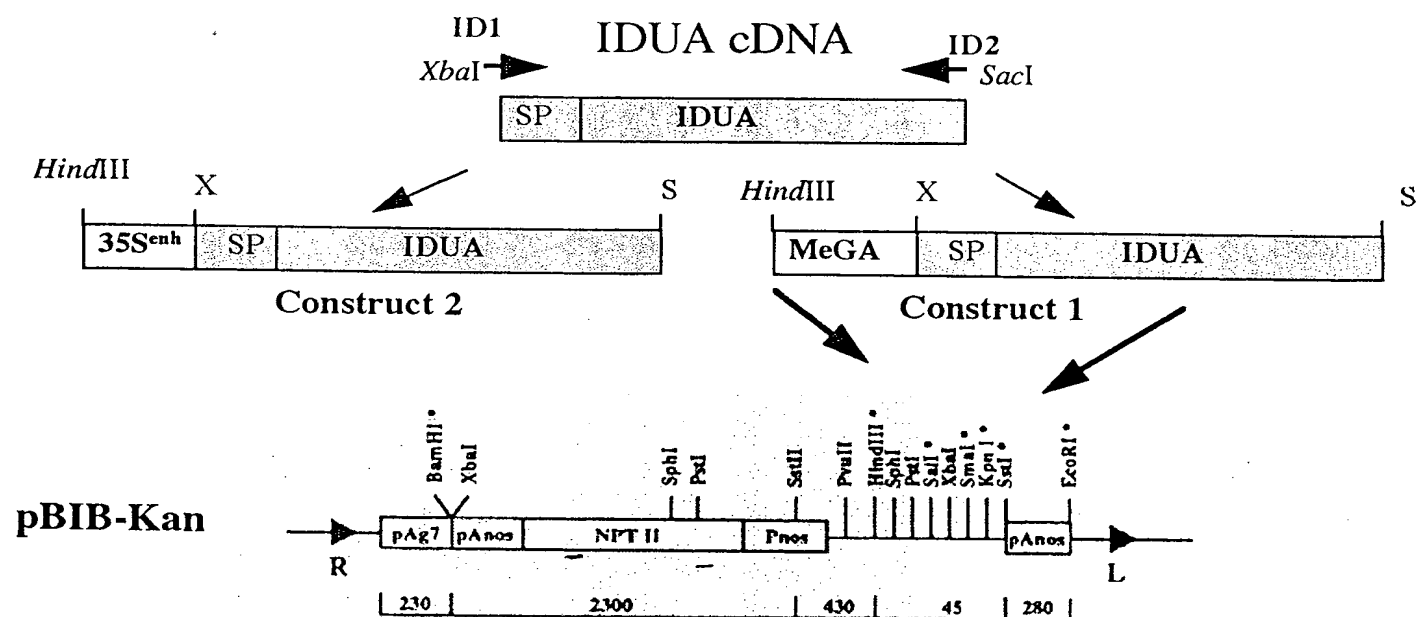


FIG. 12

(Sheet 14 of 24)

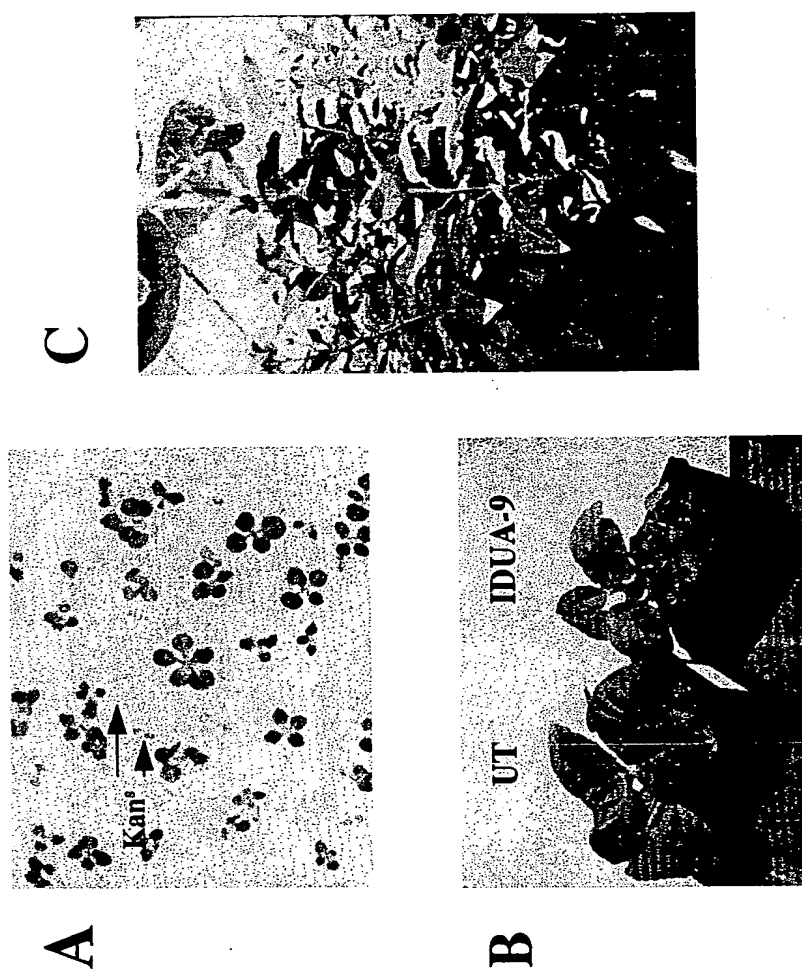


FIG. 13

(Sheet 15 of 24)

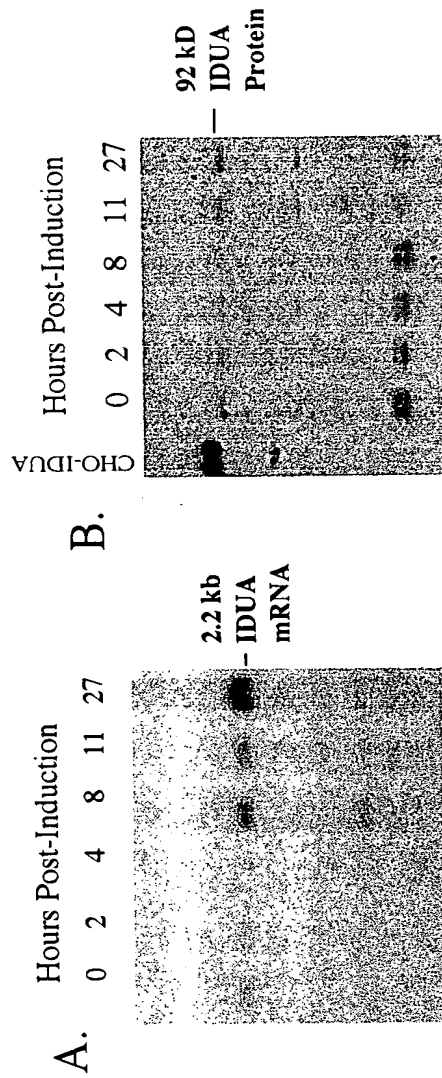


FIG. 14

(Sheet 16 of 24)

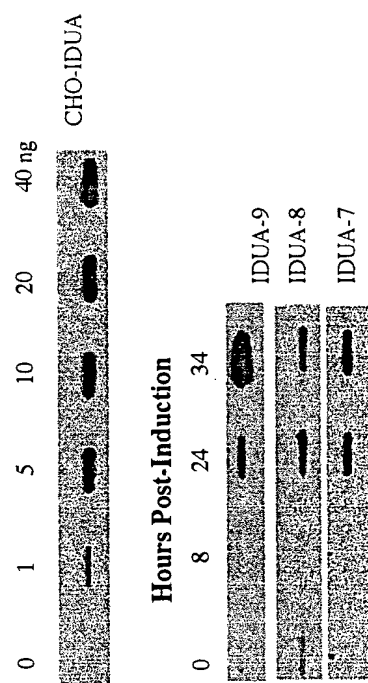


FIG. 15

(Sheet 17 of 24)

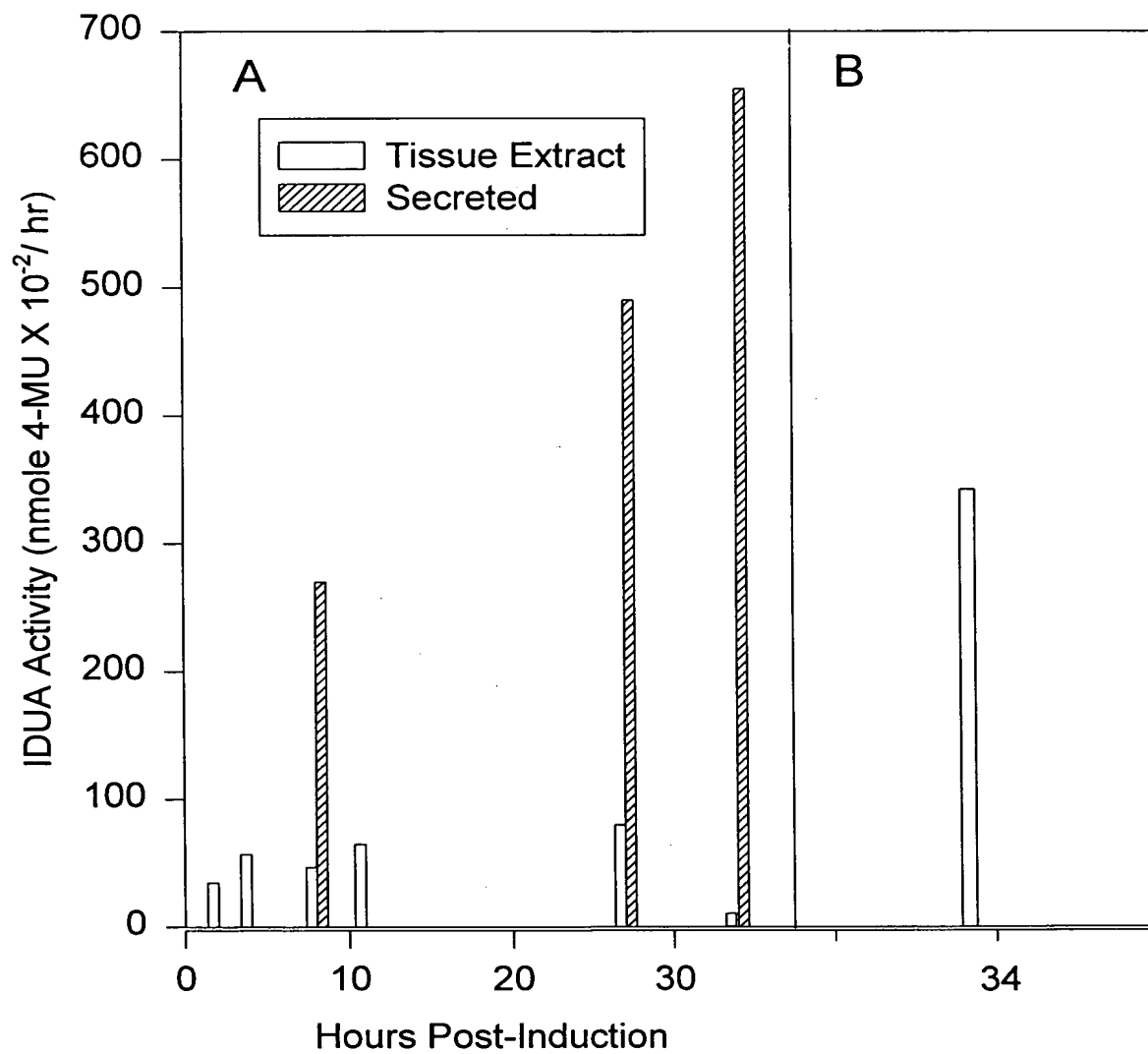


FIG. 16

(Sheet 18 of 24)

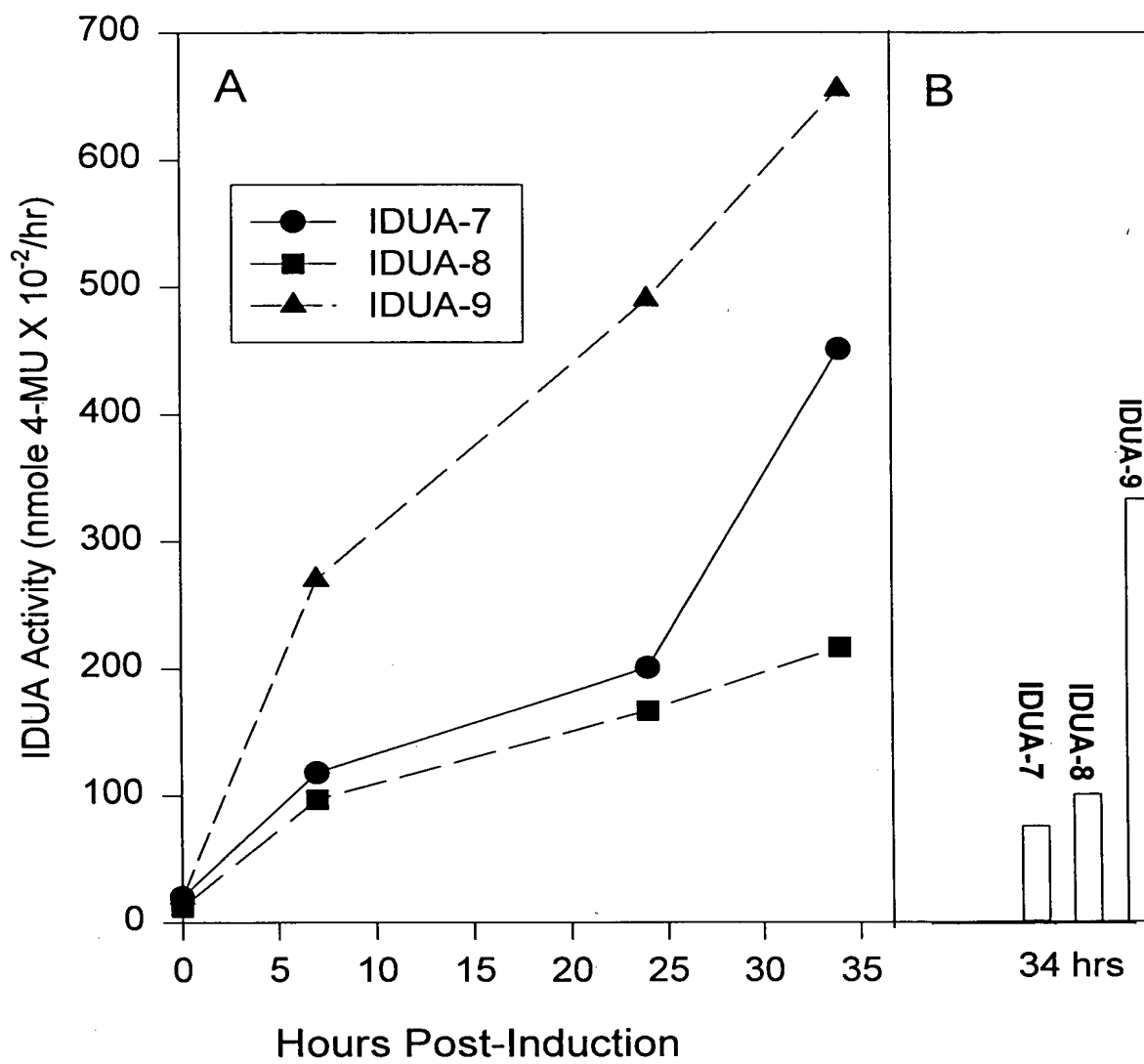


FIG. 17

(Sheet 19 of 24)

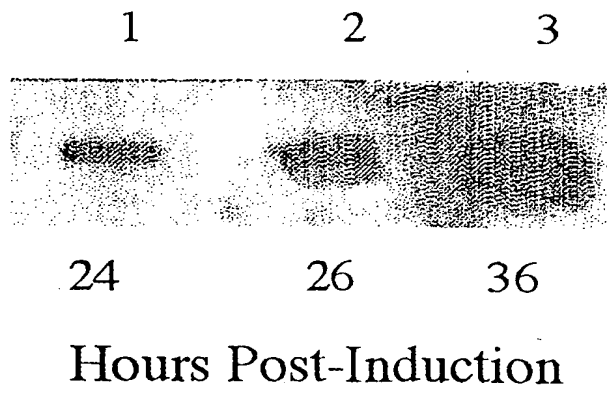


FIG. 18

(Sheet 20 of 24)

Nucleotide Sequence of α -L-iduronidase

```

          90                      110
        ATGCGTCCCCTGCGCCCCCGCGCCGCTGCT

    130          150          170
  GCGCTCCTGGCCTCGCTCCTGGCCGCGCCCCCGGTGGCCCCGGCCGAGGCCCGCACCT

    190          210          230
  GGTGCAGgTGGACGCGGCCCGCGCGCTGTGGCCCCTGCGGCGCTTCTGGAGGAGCACAGG

    250          270          290
  CTTCTGCCCCCGCTGCCACACAGCCAGGCTGACCAGTACGTCCTCAGCTGGGACCAGCA

    310          330          350
  GCTCAACCTCGCCTATGTGGGCGCCGTCCCTCACCGCGGCATCAAGCAGGTCCGGACCCA

    370          390          410
  CTGGCTGCTGGAGCTTGTCAACCACCAGGGGTCCACTGGACGGGGCCTGAGCTACAACTT

    430          450          470
  CACCCACCTGGACGGTACTTGGACCTTCTCAGGGAGAACCAGCTCCTCCCAGGGTTTGA

    490          510          530
  GCTGATGGGCAGCGCCTCGGGCCACTTCACTGACTTTGAGGACAAGCAGCAGGTGTTTGA

    550          570          590
  GTGGAAGGACTTGGTCTCCAGCCTGGCCAGGAGATACATCGGTAGGTACGGACTGGCGCA

    610          630          650
  TGTTTCCAAGTGGAACCTCGAGACGTGGAATGAGCCAGACCACCAGACTTTGACAACGT

    670          690          710
  CTCCATGACCATGCAAGGCTTCCTGAACTACTACGATGCCTGCTCGGAGGGTCTGCGCGC

    730          750          770
  CGCCAGCCCCGCCCTGCGGCTGGGAGGCCCCGGCGACTCCTTCCACACCCACCGCGATC

    790          810          830
  CCCGCTGAGCTGGGGCCTCCTGCGCCACTGCCACGACGGTACCAACTTCTTCACTGGGGA

```

FIG. 19 (Page 1 of 3)

(Sheet 21 of 24)

850 870 890
GGCGGGCGTGCGGCTGGACTACATCTCCCTCCACAGGAAGGGTGCGCGCAGCTCCATCTC

910 930 950
CATCCTGGAGCAGGAGAAGGTCGTGCGCAGAGATCCGGCAGCTCTTCCCCAAGTTTCG

970 990 1010
GGACACCCCCATTTACAACGACGAGGCGGACCCGCTGGTGGGCTGGTCCCTGCCACAGCC

1030 1050 1070
GTGGAGGGCGGACGTGACCTACGCGGCCATGGTGGTGAAGGTCATCGCGCAGCATCAGAA

1090 1110 1130
CCTGCTACTGGCCAACACCACTCCGCCTTCCCTACGCGCTCCTGAGCAACGACAATGC

1150 1170 1190
CTTCCTGAGCTACCACCCGCACCCCTTCGCGCAGCGCACGCTCACCGCGCGCTTCCAGGT

1210 1230 1250
CAACAACACCCGCCCGCCGCACGTGCAGCTGTTGCGCAAGCCGGTGCTCACGGCCATGGG

1270 1290 1310
GCTGCTGGCGCTGCTGGATGAGGAGCAGCTCTGGGCCGAAGTGTGCGAGGCCGGGACCGT

1330 1350 1370
CCTGGACAGCAACCACACGGTGGGCGTCCCTGGCCAGCGCCACCGCCCCCAGGGCCCGGC

1390 1410 1430
CGACGCCTGGCGCGCCGCGGTGCTGATCTACGCGAGCGACGACACCCGCGCCCAACCCAA

1450 1470 1490
CCGCAGCGTCGCGGTGACCCTGCGGCTGCGCGGGGTGCCCCCGGCCCCGGGCGCTGCTA

1510 1530 1550
CGTCACGCGCTACCTGGACAACGGGCTCTGCAGCCCCGACGGCGAGTGGCGGCGCCTGGG

1570 1590 1610
CCGGCCCGTCTTCCCCACGGCAGAGCAGTTCCGGCGCATGCGCGCGGTGAGGACCCGGT

1630 1650 1670
GGCCGCGGCGCCCCGCCCCCTTACCCGCGGCGGCGCCTGACCCTGCGCCCCGCGCTGCG

FIG. 19 (Page 2 of 3)

(Sheet 22 of 24)

1690 1710 1730
GCTGCCGTCGCTTTTGCTGGTGCACGTGTGTGCGCGCCCCGAGAAGCCGCCCGGGCAGGT

1750 1770 1790
CACGCGGCTCCGCGCCCTGCCCCTGACCCAAGGGCAGCTGGTTCTGGTCTGGTCGGATGA

1810 1830 1850
ACACGTGGGCTCCAAGTGCCTGTGGACATACGAGATCCAGTTCTCTCAGGACGGTAAGGC

1870 1890 1910
GTACACCCCGGTCAGCAGGAAGCCATCGACCTTCAACCTCTTTGTGTTCAGCCCAGACAC

1930 1950 1970
AGGTGCTGTCTCTGGCTCCTACCGAGTTCGAGCCCTGGACTACTGGGCCCCGACCAGGCCC

1990 2010 2030
CTTCTCGGACCCTGTGCCGTACCTGGAGGTCCCTGTGCCAAGAGGGCCCCCATCCCCGGG

2050 2070 2090
CAATCCATGAGCCTGTGCTGAGCCCCAGTGGGTTGCACCTCCACCGGCAGTCAGCGAGCT

2110 2130 2150
GGGGCTGCACTGTGCCCATGCTGCCCTCCCATCACCCCTTTGCAATATATTTTT

FIG. 19 (Page 3 of 3)

(Sheet 23 of 24)

Amino Acid Sequence of α -L-iduronidase

10 30 50
MRPLRPRAALLALLASLLAAPPVAPAEAPHLVHVDAARALWPLRRFWRSTGFCPPLPHSQ

70 90 110
ADQYVLSWDQQLNLAYVGAVPHRGIKQVRTHWLLVTTTRGSTGRGLSYNFTHLDTLDL

130 150 170
LRENQLLPGFELMGSASGHFTDFEDKQQVFEWKDLVSSLARRYIGRYGLAHVSKWNFETW

190 210 230
NEPDHHDFFDNVSMTMQGFNLNYDACSEGLRAASPALRLGGPGDSFHTPPRSPLSWGLLRH

250 270 290
CHDGTNFFTGEAGVRLDYISLHRKGARSSISILEQEKVVAQEIRQLFPKFADTPIYNDEA

310 330 350
DPLVGWSLPQPWRADVITYAAMVVKVIAQHQNLLANTTSAPFYALLSNDNAFLSYHPHPF

370 390 410
AQRTLTARFQVNNTRPPHVQLLRKPVLTAMGLLALLDEEQWLAEVSQAGTVLDSNHTVG

430 450 470
LASAHRPQGPADAWRAAVLIYASDDTRAHPNRSVAVTLRLRGVPPGPGLVVTRYLDNGL

490 510 530
CSPDGEWRRRLGRPVFPTAEQFRMRRAEDPVAAAPRPLPAGGRLTLRPALRLPSLLLHV

550 570 590
CARPEKPPGQVTRLRALPLTQGQLVLVWSDEHVGSKCLWTYEIQFSQDGKAYTPVSRKPS

610 630 650
TFNLFVFSPTGAVSGSYRVRALDYWARPGPFSDVPYPYLEVPVPRGPPSPGNP

FIG. 20

(Sheet 24 of 24)

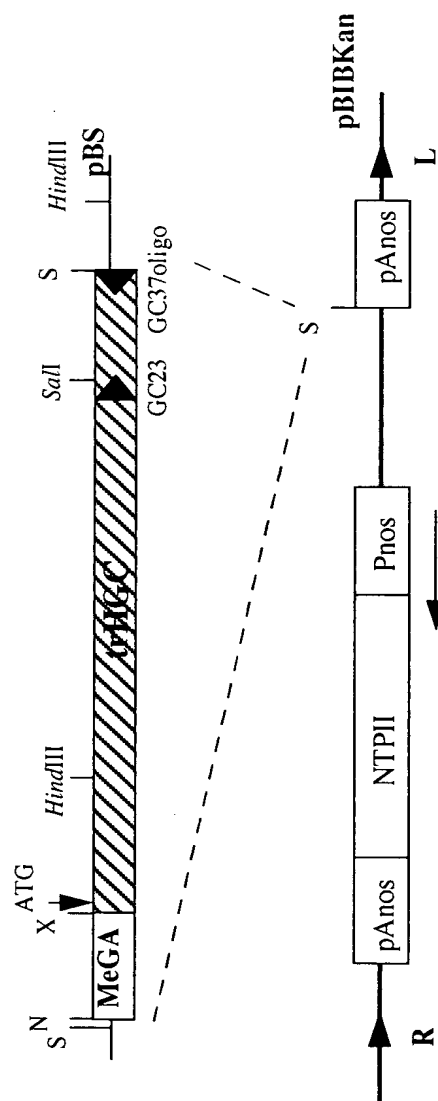


FIG. 21